

US Serial No: 09/891,033
Docket No.: 0017-40

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claim 1 (currently amended): A permanently deformed, stress relaxed amorphous metal alloy strip having an articulated topographical definition of a selected shape or configuration exhibiting shear bands in said articulated definition distending at a depth greater than strip thickness produced on a generally planar, previously cast amorphous metal strip by application of selected forces imparted by a set of stamping dies having mating surfaces that induce said permanent deformation without strip embrittlement or crystallization.

Claim 2 (previously presented): An amorphous metal alloy strip according to claim 1 which comprises a plurality of articulated topographical definitions.

Claim 3 (previously presented): An amorphous metal alloy strip according to claim 1 which comprises a plurality of geometrically repeating articulated topographical definitions.

Claim 4 (previously presented): (Once Amended) An amorphous metal alloy strip according to claim 1, having a composition defined by the formula:



wherein:

M is a metal selected from one or more of the group consisting of Fe, Ni, Co, V and Cr;

Y represents one or more elements from the group consisting of P, B and C;

k represents atomic percent, and has a value of from about 70 – 85;

p represents atomic percent, and has a value of about 15 – 30;

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Claim 5 ((previously presented): An amorphous metal alloy strip according to claim 1, having a composition defined by the formula:



wherein:

M is a metal selected from one or more of the group consisting of Fe, Ni, Co, V and Cr;

Y represents one or more elements from the group consisting of P, B and C;

Z is one or more elements selected from the group Al, Si, Sn, Ge, In, Sb or Be;

a represents atomic percent and has a value of from about 60 – 90;

b represents atomic percent and has a value of from about 10 – 30;

c represents atomic percent and has a value of from about 0.1 – 15;

and, $a+b+c = 100$.

Claim 6 (previously presented): An abrasive article which comprises the amorphous metal alloy strip having an articulated topographical definition according to claim 1.

Claim 7 (previously presented): An abrasive article which comprises amorphous metal alloy strip having a plurality of an articulated topographical definitions according to claim 2.

Claim 8 (previously presented): A cutting article which comprises the amorphous metal alloy strip having an articulated topographical definition according to claim 1.

Claim 9 (previously presented): A cutting article which comprises the amorphous metal alloy strip having a plurality of an articulated topographical definitions according to claim 2.

Claim 10 (canceled).

Claim 11 (currently amended): An article which comprises a plurality of self-nesting permanently deformed stress relaxed amorphous metal alloy strips, each of said strips being a generally planar, previously cast amorphous metal strip and having an articulated topographical definition of a selected shape exhibiting shear bands in said articulated definition distending at a depth greater than

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the strip thickness produced thereon by application of selected forces imparted by a set of stamping dies having mating surfaces that induce said permanent deformation without strip embrittlement or crystallization.

Claim 12 (previously presented): An article according to claim 11, said article being a wound transformer core.

Claim 13 (previously presented): An article according to claim 11, said article being a stacked transformer core.

Claim 14 (withdrawn): A process for the manufacture of an amorphous metal alloy article having an articulated topographical definition which comprises the steps of:

heating the amorphous metal alloy article to an elevated temperature and subsequently stamping or otherwise deforming the heated amorphous metal alloy article in a die.

Claim 15 (withdrawn): The process according to claim 14 wherein the die is preheated.

Claim 16 (withdrawn): The process according to claim 14 wherein the die is a roller die or a stamping die.

Claim 17 (withdrawn): The process according to claim 14 wherein at last part of the articulated topographical definitions are selectively crystallized.

Claim 18 (withdrawn): The process according to claim 14 wherein at last part of the articulated topographical definitions are ground to remove a part of the articulated topographical definitions.

Claim 19 (withdrawn): The process according to claim 14 wherein an abrasive material is adhered to at least the articulated topographical definitions of the amorphous metal alloy article.